

## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1.9  
F76 ch

LIBRARY RECEIVED  
★  
MAR 21 1936  
U. S. DEPT. OF AGRICULTURE

# CONSTRUCTION



## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Vol. 2

Washington, D. C.

March 21, 1936.

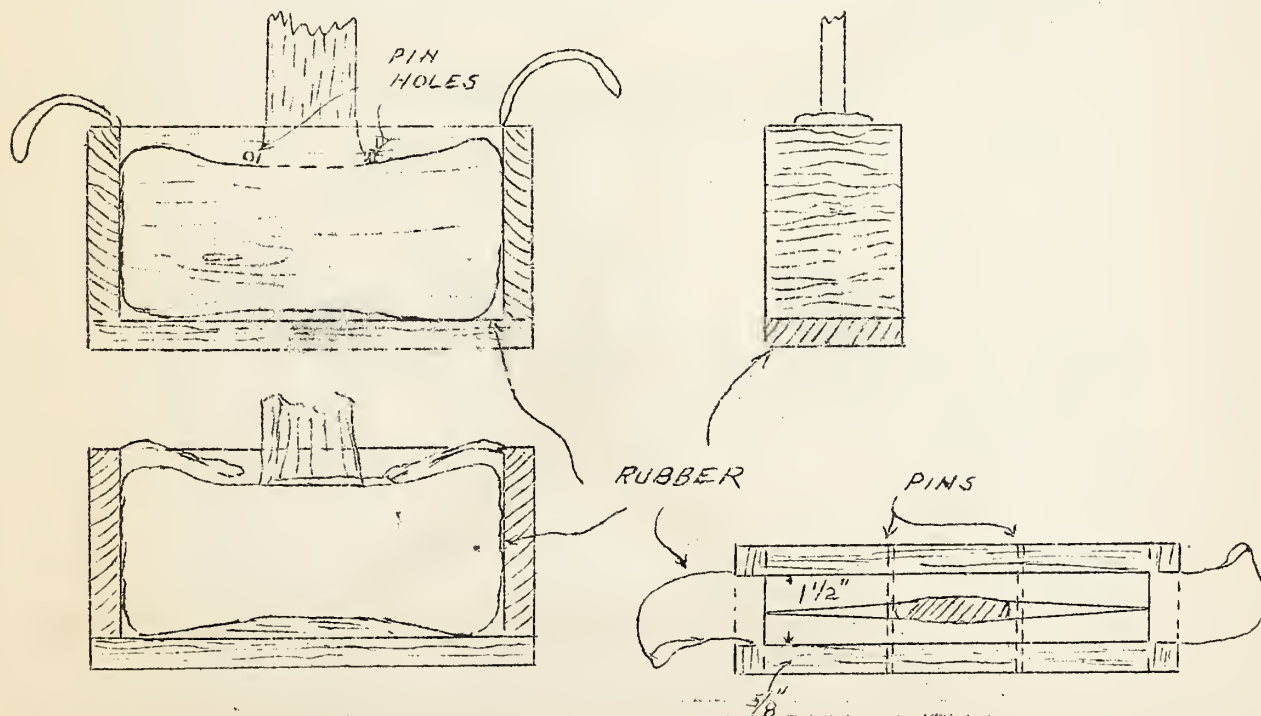
No. 6.

### INDIVIDUAL AXE BOX

Submitted by C. V. Stevens, Inspector, R-1

Individual axe boxes may easily be constructed according to the sketch. This box not only protects the axe from injury but also prevents possible injury of men while riding in trucks.

Rubber straps or pieces of old inner tube are used to provide a tension on the iron pins thus preventing their falling out.

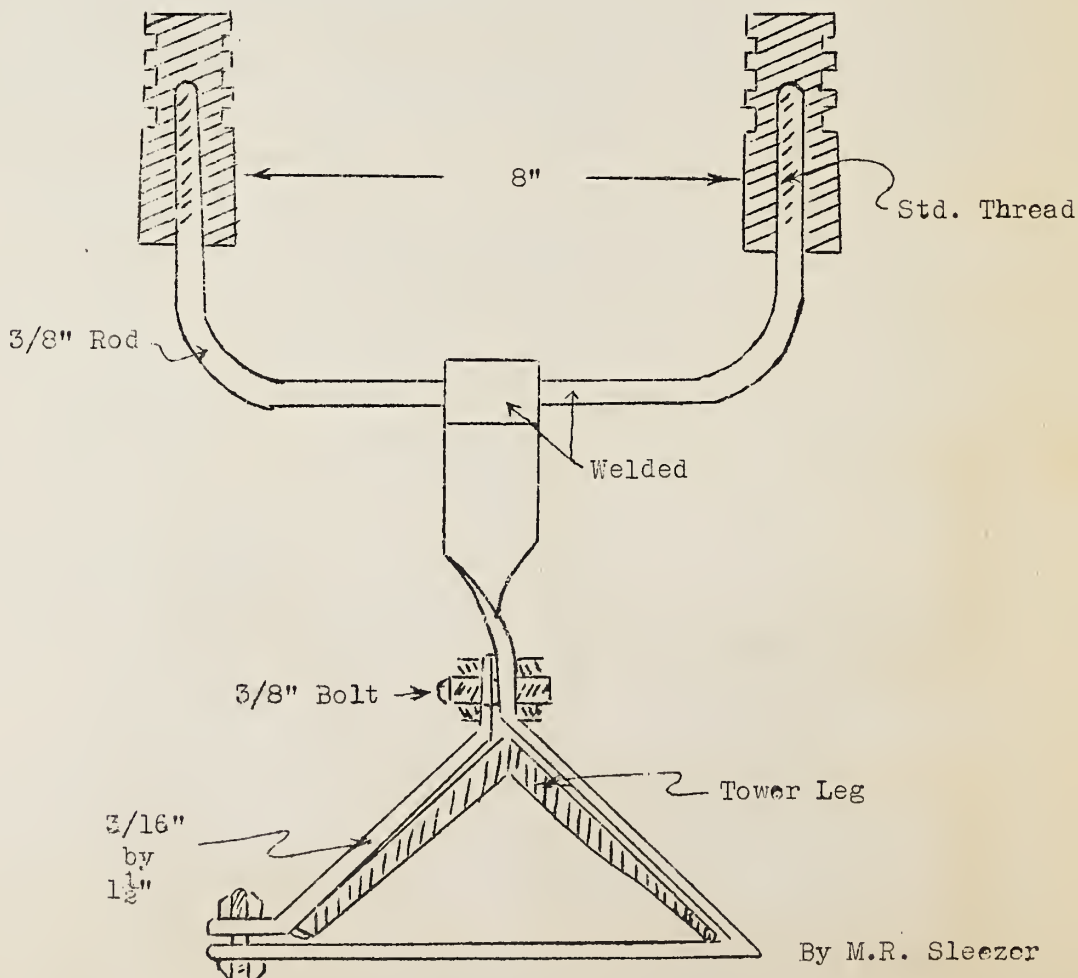


(Over)

## TOWER LEG CLAMP FOR TELEPHONE LINE INSULATION

Contributed By Upper Michigan National Forests  
Region 9.

It has been noted that several different methods have been employed for fastening brackets to towers. The clamp shown makes an efficient, economical and uniform method of attaching insulators. The clamp is designed to be fitted to the leg of the tower just above the leg joint. Twisted pair lead-in wire is tied to one insulator and the ground wire to the other. These clamps were made by the blacksmith and made of standard size materials on hand usually at all blacksmith shops. The ends of the 3/8" 'U' are threaded with a standard die before bending. The ends of brackets or pins are screwed into the insulator and cut off even with the bottom of the insulator. They are then held in a wood vise and bored with a 5/8" bit and then screwed to the threaded ends of the 'U'. If a little varnish is applied to the thread it is bound to hold more tightly. It is recommended that the clamps be given two coats of Aluminum paint.



















### USES OF OLD GRADER BLADES

Contributed by Geo. D. Henning, Truck Trail Locator,  
Huron National Forest, R-9.

Blades removed from heavy graders because of worn cutting edge and worn ends can be used to replace cutting bits on rotary scrapers.

The blades are very hard and cannot be drilled with ordinary high-speed drills, but the proper holes may be made with a burning torch. Shaping and counter-sinking may be done with a die while still hot from the burning. The die is a punch made of tool steel, round or square as needed. The punch is tapered or shouldered to the bevel of the counter-sink and used over a hole of the proper size in a bench block or anvil. A new bolt may also be used.

In many cases existing holes may be utilized in cutting the old blade to size.

Care must be used that the hole is properly centered and not burned too large so that insufficient material is left for shaping with die.

Shoes for bulldozers and snowplows can be made also from old blades by cutting, shaping and punching. There is very little saving in making shoes for snowplows for the shoe is subjected to a great deal of wear by coming in contact with gravel road surface. The half-inch thickness does not give very long wear. Bulldozers used for earthmoving are not subjected to such severe shoe wear. A satisfactory shoe is made by cutting two pieces of blade approximately 20" long, laying them side by side with the two old cutting edges together and brazing their full length in the V-shaped joint. Each end is bent up runner-style; and the four corners may be given a little additional bend upward. Some punching may be saved by using holes already in the blade and making cutoff to conform with them. This possibility should be checked before cutting.

The cost of this work will vary according to the skill of the man and the amount of cutting and burning necessary.

